

Claims

[c1] 1. A laminated primary winding for a matrix transformer comprising

a plurality of "U" shaped sheet metal windings,

a plurality of "U" shaped sheet insulators,

the plurality of "U" shaped sheet metal windings being assembled in layers alternately with the plurality of "U" shaped sheet insulators so that each one of the plurality of "U" shaped sheet metal windings is electrically isolated from all of the remainder of the plurality of "U" shaped sheet metal windings,

the ends of the plurality of "U" shaped sheet metal windings extending from the laminated primary winding as stepped terminations that are successively stepped so that each one of the plurality of "U" shaped sheet metal windings has an exposed surface electrical contact area for making electrical interconnections within the matrix transformer and for making electrical connections to circuitry that is external to the matrix transformer.

[c2] 2. The laminated primary winding of claim 1 wherein the "U" shaped sheet metal windings are flat stacked "U" shaped windings.

- [c3] 3. The laminated primary winding of claim 1 wherein the "U" shaped sheet metal windings are nested "U" shaped windings.
- [c4] 4 The laminated primary winding of claim 1 further comprising at least one element of a matrix transformer through which the laminated primary winding has been installed and wherein the laminated primary has been terminated and interconnected using terminations and interconnections from and between the exposed surface electrical contact areas of the laminated primary winding so as to make a matrix transformer.
- [c5] 5. The laminated primary winding of claim 4 wherein the terminations and interconnections comprise stamped metal terminations and interconnections.
- [c6] 6. A laminated primary winding for a matrix transformer comprising at least first and second laminated sub-assemblies,
the first and second laminated subassemblies each comprising
a plurality of "U" shaped sheet metal windings,
a plurality of "U" shaped sheet insulators,
the plurality of "U" shaped sheet metal windings being assembled in layers alternately with the plurality of "U"

shaped sheet insulators so that each one of the plurality of "U" shaped sheet metal windings is electrically isolated from all of the remainder of the plurality of "U" shaped sheet metal windings,

the first and second laminated subassemblies further having complementary successively stepped exposed electrical contact areas which can be mated to connect the first laminated subassembly to the second laminated subassembly within the matrix transformer.